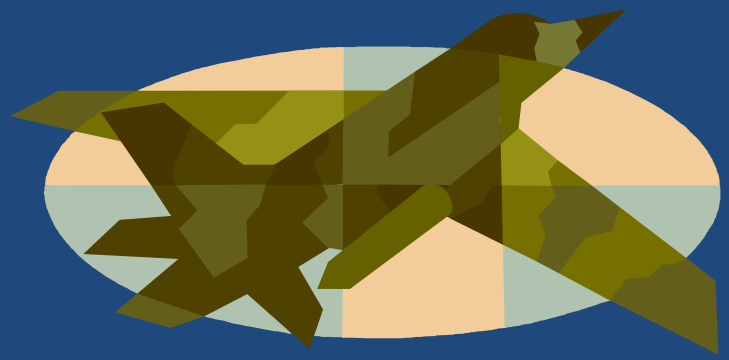
Aviation Science



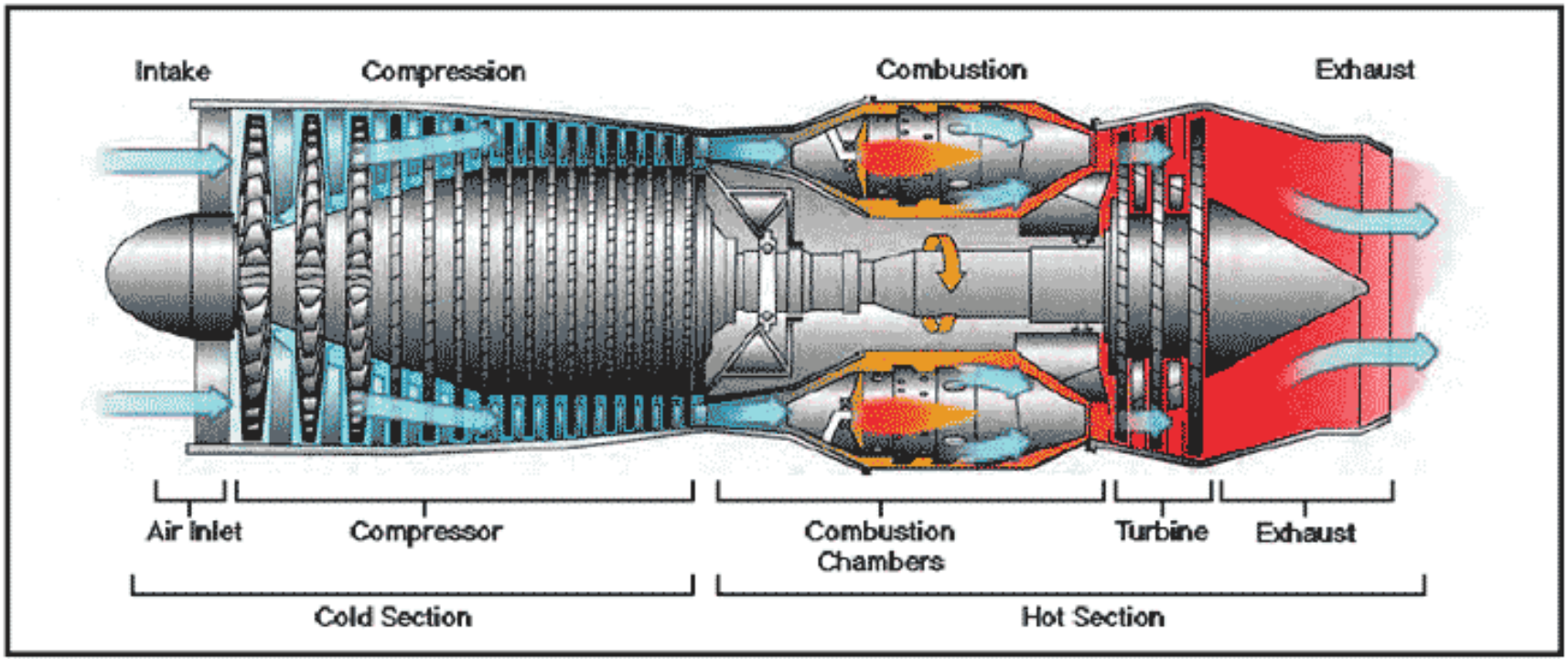
By: Tre Dukes

Why Aviation Science is important

- Aviation **benefits** passengers with swift, cost-effective transportation over large distances.
- Aviation **provides** new doors and avenues for places that have outstanding circumstances and aren't able to produce or build certain materials.
- Aviation can **contribute** to the overall economic growth of a city, town and or community.
- Aviation **creates** large numbers of high-value jobs

Thrust

• Thrust should be thought of as the driving force and is produced by the engines on an airplane that propel the aircraft forwards by moving a large quantity of air backwards.



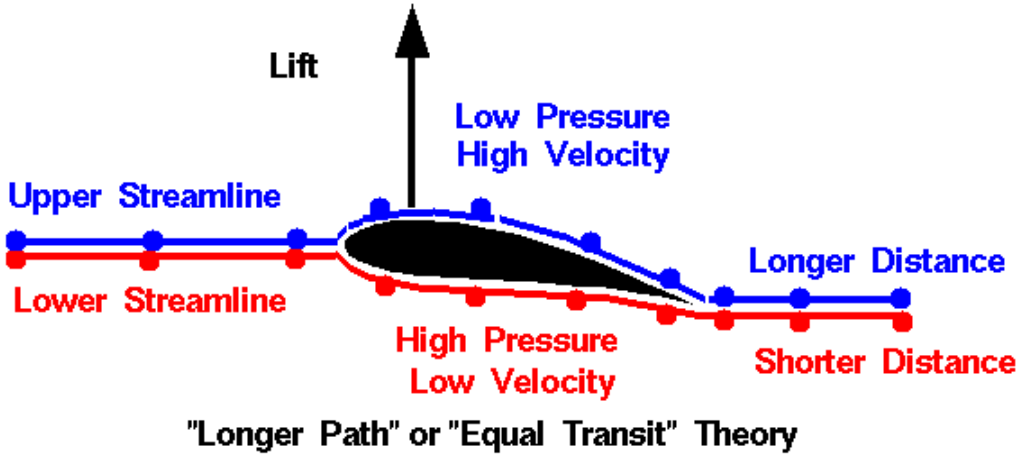
Lift

To explain lift, imagine two joined components of air approaching a wing and one component is forced to fly over the upper surface of the wing, while the other fly's underneath.

Lift (Cont.)

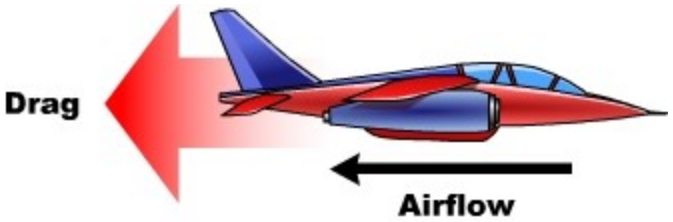
So what does that mean?

- Basically the components of the particles below the wing move slower and create a high volume of air pressure which is what gives the plane its lift.



Drag

Drag is simply the resistance of the air against the aircraft. Think of it like when you stick your hand out of a car window.



Weight

Gravity is the constant force acting on all things here on earth, the force that literally keeps us grounded individuals.

Force = Mass X Acceleration